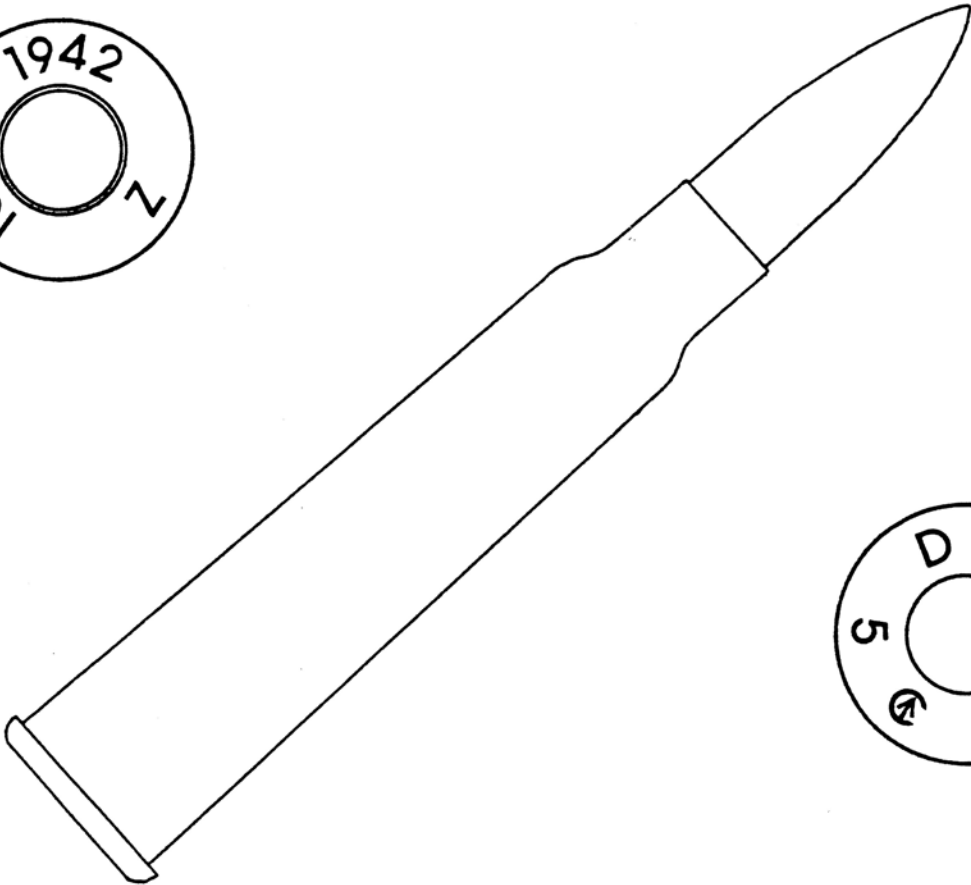
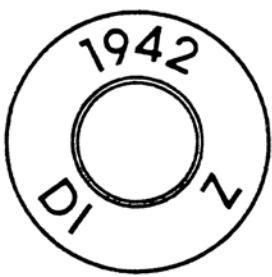


CANADIAN MANUFACTURED

CAL.-303 BRITISH

MILITARY BALL AMMUNITION

HEADSTAMP IDENTIFICATION



W.R. WONCH

CANADIAN INDUSTRIES LIMITED

This brochure is intended to be a guide to identification of types of headstamps used on Canadian manufactured calibre .303" military small arms ammunition (".303 British"). The charts also show the symbols used on tracer, incendiary, armour-piercing and various other classes of ammunition manufactured in Canada. These latter classes, especially during World War II, were often made from "ball" cases channeled from high speed production lines and loaded as tracers, etc., without any specific code identification, so headstamps alone are not infallible identification of a particular load.

Collectors will undoubtedly come across manufacturing defects and differences causing "one-of-a-kind" variations, which are of minor interest, but this list covers the basic types. The author will greatly appreciate any correspondence with collectors and interested parties regarding errors and omissions from this list. All specimens are from the authors collection or have been viewed and examined by the author.

Some of the most rare types appear to be :

Marks IV and V, the Standards cartridge (only two specimens known), and the following dated cartridges, 1905, 1908, 1909 (two types), 1910 (two types), 1912 and 1930.

The author would like to gratefully acknowledge the assistance given him by the following :

J. W. Houlden	-	Canadian Industries Limited
J. H. D. Turner	-	Ontario Arms Collectors
A. R. Todd	-	Canadian Industries Limited
R. A. Dunlop	-	Toronto Anglers and Hunters

and the facilities of the Arms and Ammunition Museum of Canadian Industries Limited at their plant in Brownsburg, Canada.

W. R. Wonch

MILITARY .303 BRITISH AMMUNITION

Colour Code	Colour of Annulus	Type & Mark	Manufacturer(s)	Headstamp Identification
None	Purple	Ball - Mks. II to VIII	DA, DAL, DIL & CIL	Roman numeral mark designation
Black band (Approx 3/10 ins wide near base) of case	Red	Tracer - G Mk. I	Dominion Arsenals Quebec, Canada	G I or VII G I
Red bullet tip	Purple	Tracer - G Mk. II	DIL - Brownsburg, Canada	None - regular ball H/S
White bullet tip	Purple	Tracer - G Mk. IV	DIL - Brownsburg	G IV
White bullet tip	Purple	Tracer - G Mk. VI or Tracer - G Mk. VI A	DIL - Brownsburg	None - regular ball H/S
None	Blue	Incendiary - B Mk. VII Z	DA - Quebec	B VII Z
Blue bullet tip	Blue	Incendiary - B Mk. VII Z	DA - Quebec	B VII Z
None	Green	A. P. - W MK. I	DA - Quebec	W I
No bullet - Top half of case blackened		Grenade - Launcher L Mk. I Z & L Mk. I	DA & DIL - Quebec & Brownsburg	Regular ball H/S - wad in neck lacquered
Neck of case blackened - Regular bullet	Clear	Special ball amm. for match use, pre - WW I	DA - Quebec	Only known specs. - DAC 1914 VII Specially marked packages
Coloured bands on case - red, green, violet and blue	Purple	Special ball amm. for match use	DA - Quebec	Regular ball H/S - Specially marked packages

SYMBOLS AND CODES USED IN CANADIAN .303 HEADSTAMPS

- DA } Dominion Arsenals Ltd.
- DAE } - Valcartier Arsenal, Quebec, P.Q., Canada.
- DEA } (Appears usually in combination with "C", as shown)


- DAC - As above (Appears only from 1892 to 1909)

- DAL } Dominion Arsenals Ltd.,
- LAE } (or Lindsay Arsenal) Lindsay, Ontario, Canada.

- DI - Defense Industries Ltd., Brownsburg or Verdun, Canada.

- DC - "Dominion Cartridge" - Code letters for Canadian Industries Limited, Dominion Ammunition Division, Brownsburg, P.Q., Canada.
(Also used on some ammunition manufactured by D.I.L. Brownsburg using C-I-L tools, due to wartime exigencies).

- D - As above (on production between 1918 and 1938).

- C - Signifies cordite powder when appearing in conjunction with Mark designation thus :
Appears from 1892 to 1909. Should not be confused with DC or DAC. 

- Z - Signifies nitrocellulose powder (does not always appear in D.I.L. headstamps, although all D.I.L. S.A.A. production used N/C powder).

- Λ - British, Broad Arrow - used to signify military property - found on early Marks only.

- ⊕ - Canadian, Broad Arrow "C" - combination of broad arrow and cordite "C" (appears alone only in DA 1910, and DAL 1918 to 1922, otherwise appears with DA or LA).

- B - Incendiary.

- G - Tracer.

- Q - Proof.

- W - Armour Piercing.

- GP-B - Gallery Practice - Ball.

- Dates - Appear variously as month and two digit year ("6 06" - June 1906), two digit year ("36" - 1936) and full year ("1912").

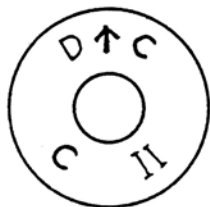
- Mark - Designation appears as Roman Numerals such as II, IV, V, VI, VII, VIII, (or, in Mk VII only as Arabic "7") in combination with letters of the "type" code and powder code (Mark numeral does not always appear on D.I.L. production).

HEADSTAMP "MARK" CODE

The following table should be used in conjunction with the colour code table, for complete identification.

II	-	Mk. II	
IV	-	Mk. IV	
V	-	Mk. V	
VI	-	Mk. VI	
VII	-	Mk. VII	
VIII	-	Mk. VIII	
VIIGI	-	G Mk. I	} D.A. Production only
GI	-	G Mk. I	
none	-	G Mk. II (D.I.L. Production only - regular ball headstamp)	
GIV	-	G Mk. IV	
none	-	G Mk. VI (D.I.L. Production only - regular ball headstamp)	
none	-	G Mk. VI A (D.I.L. Production only - regular ball H/S)	
none	-	H Mk. IZ / L / (D.I.L. Production only - regular ball H/S)	
WI	-	W Mk. I	
BVII	-	B Mk. VII (B Mk. I, Canadian)	
QIV	-	Q Mk. IV	
Various-	Conversions were made using second grade cases loaded to Blank Mk. V L, Gallery Practice Mk. II and III and made into Dummy U, Canadian Pattern, and Drill D, 1942 Canadian Pattern.		

S.A. BALL (ARSENALS)



Mark II

Mfr: Dominion Arsenals

Date: 1892 to mid 1890's. Bullet: Cu/Ni (215)

Rem: Convex berdan primer - very small printing



Mark II

Mfr: Dominion Arsenals

Date: Late 1890's to approx 1900 Bullet: Cu/Ni (215)

Rem: Large printing of exact same style as above.



Mark IV

Mfr: Dominion Arsenals

Date: 1899

Bullet: Cu/Ni Hollow
pointRem: Not in general issue - experimental and
trial only

Mark V

Mfr: Dominion Arsenals

Date: 1899 to 1904

Bullet: Cu/Ni Hollow
point

Rem: General issue until Jan. 1904



Mark VI

Mfr: Dominion Arsenals

Date: 1904 & 1905

Bullet: Cu/Ni (215)

Rem: General issue



Mark VI

Mfr: Dominion Arsenals

Date: 1905 to mid 1908

Bullet: Cu/Ni (215)

Rem: Date (month & year) added in June (?) 1905
to regular Mk. VI headstamp.



Mark VI

Mfr: Dominion Arsenals

Date: Mid 1908 to mid 1909

Bullet: Cu/Ni (215)

Rem: 'C' (meaning Cordite) does not appear,
specimens seen have all been dated July
and August 1908, and January 1909.



Mark VI

Mfr: Dominion Arsenals

Date: Late 1909 to late
1910

Bullet: Cu/Ni (215)

Rem: first appearance of Canadian "broad arrow C"



Mark VI

Mfr: Dominion Arsenals

Date: Late 1910 to 1912

Bullet: Cu/Ni (215)

Rem: First appearance of full year date - monthly
dating discontinued.



Mark VII

Mfr: Dominion Arsenals

Date: 1912 to 1919

Bullet: Cu/Ni (174)

Rem: First issue Mk. VII beginning 1912
Full date - small printing - "DAC" close
together - semi-rounded berdan primer
1912 & 1913 had circular staked primers
1914 to 1919 unstaked primers
1919 changed to flat berdan primers



Mark VII

Mfr: Dominion Arsenal

Date: 1920 to 1922

Bullet: Cu/Ni

Rem: "DAC" widely separated - same printing as
as above - flat berdan primer



Mark VII

Mfr: Dominion Arsenal

Date: 1923 to 1934

Bullet: Cu/Ni

Rem: Same style as above but slightly larger
printing.



Mark VII

Mfr: Dominion Arsenal

Date: 1935

Bullet: Cu/Ni

Rem: Canadian broad arrow between "D" and "A"
Large printing - two number date.



Mark VII

Mfr: Dominion Arsenal

Date: 1936 to 1939

Bullet: Cu/Ni

Rem: As above but "DAC".



Mark VII

Mfr: Dominion Arsenal

Date: 1939

Bullet: Cu/Ni

Rem: Standards Cartridge
Hand assembled from hand calibrated, hand
gauged components as close to mean of
tolerances as possible - for correlation
of lot velocities, synchronization of
chronographs, etc. As between D.A. & D.I.L.

Mark VII

Mfr: Dominion Arsenals

Date: 1940 to 1944

Bullet: Cu/Ni and
various wartime
subs - G/M,
G/M steel,
Cu/Ni steel

Rem: Full date



Mark VII

Mfr: Dominion Arsenals

Date: 1945

Bullet: Cu/Ni & subs

Rem: "Mk" and arabic "7" - surplus '45 cases
were loaded 1950 with nickled primers and
G/M bullets to meet Korean requirements.



Mark VII

Mfr: Dominion Arsenals

Date: 1949 & 1950

Bullet: G/M

Rem: Arabic "7" - "mk" discontinued.



Mark VII

Mfr: Dominion Arsenals

Date: 1950 & 1951

Bullet: G/M

Rem: First "Z" from arsenals indicated as such,
H/S bunted after heading so printing is
sharp with no 'flow' of brass - '52 to '54
loadings were made using '51 cases.



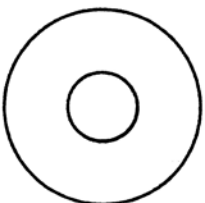
Mark

Mfr.

Date

Bullet

Rem.



S.A. BALL (ARSENAL - LINDSAY)



Mark VII

Mfr: Dominion Arsenal, Lindsay, Ont.

Date: 1917

Bullet: Cu/Ni

Rem: First year of Lindsay Manufacture



Mark VII

Mfr: Dominion Arsenal. Lindsay, Ont.

Date: 1918

Bullet: Cu/Ni

Rem: Small letters with periods between.



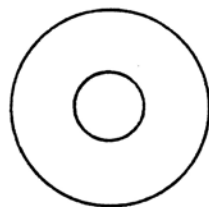
Mark VII

Mfr: Dominion Arsenal, Lindsay, Ont.

Date: 1919, 1920 & 1921

Bullet: Cu/Ni

Rem: Slightly larger letters "D.A.L." slightly farther apart.



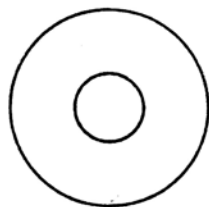
Mark

Mfr:

Date:

Bullet:

Rem:



Mark

Mfr:

Date:

Bullet:

Rem:

S.A. BALL (DOMINION CARTRIDGE COMPANY)



Mark VII

Mfr: Dominion Ctge. Co.

Date: 1915 to 1918

Bullet: Cu/Ni & G/M

Rem: Manufactured under contract in WW I -
boxer primers.



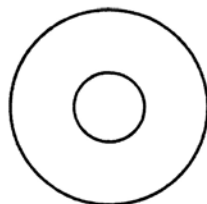
Mark VII

Mfr: Dominion Ctge. Co.

Date: 1922

Bullet: Cu/Ni

Rem: Manufactured under contract for R.C.M.P.



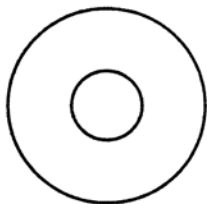
Mark

Mfr:

Date:

Bullet:

Rem:



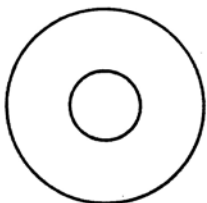
Mark

Mfr:

Date:

Bullet:

Rem:



Mark

Mfr:

Date:

Bullet:

Rem:

S.A. BALL ("DOMINION" AMMUNITION DIVISION - C I L)



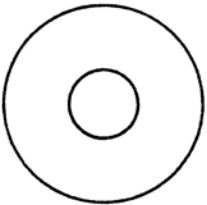
Mark VII Z

Mfr: C I L

Date: 1936 to 1939

Bullet: Cu/Ni

Rem: Manufactured under the portent of WW II



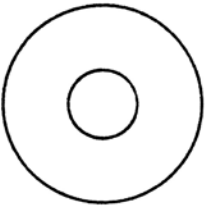
Mark

Mfr:

Date:

Bullet:

Rem:



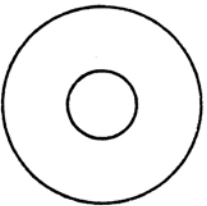
Mark

Mfr:

Date:

Bullet:

Rem:



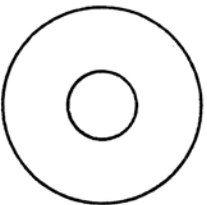
Mark

Mfr:

Date:

Bullet:

Rem:



Mark

Mfr:

Date:

Bullet:

Rem:

S.A. BALL (DEFENSE INDUSTRIES LIMITED)



Mark VII Z

Mfr: D.I.L. Brownsburg

Date: 1940 (early)

Bullet: Cu/Ni

Rem: First manufacture from D.I.L.

"Z" not indicated as such - 3 small collet crimp.



Mark VII Z

Mfr: D.I.L. Brownsburg.

Date: 1940 (late)

Bullet: Cu/Ni

Rem: Small "Z" added to dies of later 1940,
3 small collet crimp.



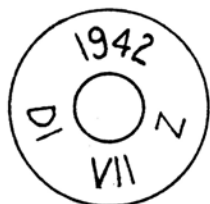
Mark VII Z

Mfr: D.I.L. Brownsburg.

Date: 1941

Bullet: Cu/Ni

Rem: 3 small collet crimp.



Mark VII Z

Mfr: D.I.L. Brownsburg.

Date: 1942 (early)

Bullet: Cu/Ni

Rem: 3 small collet crimp.



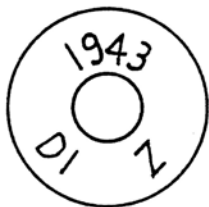
Mark VII Z

Mfr: D.I.L. Brownsburg & Verdun.

Date: 1942 (late)

Bullet: Cu/Ni

Rem: New dies made - either made at same time as
Mk. VIII or dies with "VIII" removed - then
used for Mk's VII, GII, & GVI at Brownsburg
and Verdun.



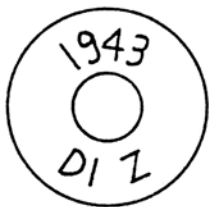
Mark VII Z

Mfr: D.I.L. Brownsburg & Verdun.

Date: 1943 (early)

Bullet: Various
wartime bts.

Rem: As above - rare in ball - seen in GVI.



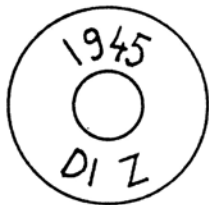
Mark VII Z

Mfr: D.I.L. Brownsburg & Verdun.

Date: 1943 (late) & 1944

Bullet: Various

Rem: New dies - "DI" and "Z" at 7 & 5 o'clock.



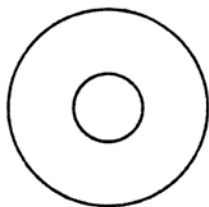
Mark VII Z

Mfr: D.I.L. Brownsburg & Verdun.

Date: 1945

Bullet: Various

Rem: Unusual "4" on new dies.



Mark

Mfr:

Date:

Bullet:

Rem:



Mark VIII Z

Mfr: D.I.L. Brownsburg & Verdun.

Date: 1942

Bullet: G/M (175)
Boattailed.Rem: New dies and style of marking for Mk. VIII
as compared to 1941 Mk. VII production.

This document is a reprint of a booklet originally
produced circa 1958 by W. R. (Bob) Wonch of C.I.L.

No changes or additions have been made to the original.

C.I.L.'s records indicate that Bob Wonch died in 1972.

Chris Punnett, November 1982.